REMARKS

In the Final Office Action, the Office has maintained the rejection made in the first Action of claims 1-6, 10-12, 14, 15, 17, 18, 20 and 21 under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Quinn et al. (GB 2,106,120) (hereinafter: "Quinn").

In the response to this rejection in the first Action, applicants argued that Quinn discloses polymerization carried out by a two-stage system and does not disclose a composition containing a copolymer (A) produced by continuous bulk polymerization or continuous solution polymerization. Applicants further argued that the rubber-reinforced styrene transparent resin composition of the present invention has a narrow distribution of weight ratios (ϕ_{ST}/ϕ_{MMA}) of the aromatic vinyl monomer (a1) and the unsaturated carboxylic acid ester monomer (a2), excellent transparency and excellent color tone.

Implicit in the arguments made in the response to the first Action is the position that the composition produced by the method described in Quinn in which polymerization is carried out by the two-stage system cannot ultimately produce a rubber-reinforced styrene transparent resin composition having a narrow distribution

of weight ratios (ϕ_{ST}/ϕ_{MMA}) of the aromatic vinyl monomer (a1) and the unsaturated carboxylic acid ester monomer (a2) and excellent transparency and color tone.

The Office has taken the position in the present Action that the process in Example 2 of Quinn utilizes "continuous addition of monomer (page 4, lines 36-40) such as would be expected to result in a monomer concentration which would vary less than a batch tyope [sic] reaction where monomer is added all at once and the more reactive onomer [sic] consumed more rapidly leading to much different monomer concentrations at the beginning than at the end of the polymerization." (Action, page 3, lines 4-8).

The conclusion of the Office is that the Quinn process would produce a product having a "more narrow compositional [sic, range?] associated with the product than a process in which all reactants were added in the beginning of the reaction." (Action, page 3, lines 9-10).

In light of the position of the Office and in order to distinguish the product of the present invention as recited in the claims of the application over the product of Quinn, claim 1 of the application has been amended to include the additional limitation that the "color tone (YI value) of the composition is 16 or less".

This limitation is supported by the data of Examples 1, 2, 4-7 and 9-12 in Table 4-2 of the application. The product of Quinn would not be expected to have a color tone within the range now recited in the claims of the application for the reasons explained below.

As can be seen by referring to the data of Tables 3 and 4-2, the products of Examples 1, 2, 4-7 and 9-12 are produced by a process in which the value of Equation (1) of the blending condition $V/v \times 10^6$ is 14.3 or less. On the other hand, the value of Equation (1) of the blending condition $V/v \times 10^6$ of Examples 3 and 8, which have a color tone (YI) greater than 16 is 43.1. V/v is "Actual volume in apparatus $Vx10^3$ (m^3)"/"Moving velocity of discharged resin v (kg/h)" and is an index of retention time in the melt blend portion. A large value of V/v indicates a long retention time and a long heating time. A small value of V/v means a short retention time and a short heating time. A longer retention time leads to higher value of color tone (YI).

As shown in Table 2 on page 73 of the present application, the products of Examples 3 and 8 are produced by a dry blending method. In a dry blending method, which is the general manufacturing method of polymer alloys, polymers are mixed in advance and then the polymer mixture is extruded. In a dry blending method, as used in

Examples 3 and 8, the value of V/v is very high. V/v x 10^6 of Examples 3 and 8 is 43.1.

The pellet YI values of the compositions of Examples 3 and 8, in which V/v is high, are 17 and 21, respectively (refer to Table 4-2 on page 76). A large value of YI means severe coloring and poor color tone. A YI of 0 means no coloration. When color tone (YI value) of a composition is 16 or less, the coloring is not severe. This is shown in the attached photographs illustrating pellet YI.

Quinn Example 2 uses a blending method like that of Examples 3 and 8 in the present application. Quinn describes that in Example 2 "20.4 [p]arts of the above graft rubber are then blended with 79.6 parts of the above terpolymer so as to provide a final polybutadiene content of 14.5%. The blending is conducted on a devolalitizer-extruder at a temperature on the inlet end of about 250 F. and at the die end of about 560 F. under a vacuum of 25-27 in Hg" (Example 2, lines 47-51). Therefore, V/v in Example 2 of Quinn, in which the polymers are mixed in advance and then extruded, like that of Examples 3 and 8, is very high. Thus, the composition of Example 2 of Quinn has a long retention time and a

long heating time and the composition would be understood by a person of ordinary skill in the art to have a large pellet Y1.

To summarize, the rubber-reinforced styrene transparent resin composition of the present invention is produced by continuous bulk polymerization or continuous solution polymerization and has a narrow distribution of weight ratios (Φ_{ST}/Φ_{MMA}) of the aromatic vinyl monomer (a1) and the unsaturated carboxylic acid ester monomer (a2), excellent transparency, and excellent color tone (as indicated by the YI value now recited in the claims of the application). Such combination of properties is not possessed by the products of Quinn.

Removal of the 35 U.S.C. 102(b) and, alternative, 103(a) rejections of the claims is believed to be in order and is respectfully requested.

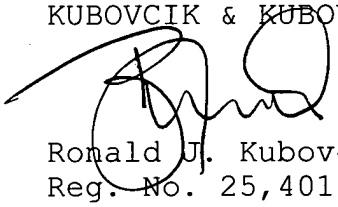
The foregoing is believed to be a complete and proper response to the Office Action dated August 25, 2005, and is believed to place this application in condition for allowance. If, however, minor issues remain that can be resolved by means of a telephone interview, the Examiner is respectfully requested to contact the undersigned attorney at the telephone number indicated below.

In the event that this paper is not considered to be timely filed, applicants hereby petition for an appropriate extension of time. The fee for any such extension may be charged to our Deposit Account No. 111833.

In the event any additional fees are required, please also charge our Deposit Account No. 111833.

Respectfully submitted,

KUBOVCIK & KUBOVCIK



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Enclosure: Photographs of pellets illustrating YI